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ABSTRACT

This paper indicates that there are two school locations where the principles of quality are at work: on the team practice field and in the band rehearsal hall. Participants in instrumental music and athletics have shown significantly higher scores on achievement tests, higher grade point averages, and lower absenteeism than the rest of the school population. The methods used by the coach and the director are arrived at without reference to Deming's work or each other but reflect solutions to the same concerns faced by total quality management (TQM). The paper isolates these techniques and suggests ways of applying them to other educational settings. Barriers to classroom implementation are enumerated and alternative strategies are examined. (EH)

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THE TWO PLACES EVERY SCHOOL REACHES QUALITY

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The Principles of Quality are at work in two school locations: the team practice field and the band rehearsal hall. The methods used by the coach and the director, arrived at without reference to Deming's work or each other, reflect solutions to the same concerns faced by TQM. The paper isolates these techniques and suggests ways of applying them to other educational settings. Finally, barriers to classroom implementation are enumerated and alternative strategies are examined.

American schools are under heavy surveillance if not direct attack from many different factions of the population. Each of these groups has its own agenda to mold the schools into better places for education, as illuminated by their own lights. In many instances, while using different vocabularies and varying methods, the motivation for seeking change and the changes sought are remarkably similar. The one fact stands out. The population is not pleased with the products of our schooling.

In reaction to this criticism, or out of their own need to improve the school situation, educators are looking for new ways to structure the learning environment in order to produce a larger number of students prepared to take their places as productive members of our society. In their search, and with some influence from the business community, many educators are turning for guidance to the principles of W. Edwards Deming.

Deming's work, subsumed under the Total Quality Management (TQM) process, can be useful to education. The problem becomes one of identifying how the fourteen points of quality management (Deming, 1986) can be applied to education in specific situations, rather than in general terms. A cursory review of Deming's points lead the reader to constantly view the customer and the employee in terms of how they fit into the management system, or rather, the company's system. It is the contention of this author that the two school activities that are not under attack from their participants nor from participants' parents have already solved the puzzle. Participants in these two activities, instrumental music and athletics, have already been shown to score significantly higher on achievement tests, have significantly higher GPAs and have significantly lower absenteeism (McCarthy, 1993). It would seem beneficial to seek out the ways that these two activities differ

from other school endeavors.

In 1959, the now-famous Woods Hole Conference was held, gathering thirty-five scientists, scholars, and educators together to discuss the improvement of science education. Collectively, the discussions that took place were assembled and edited into a Chairman's Report and published by Jerome Bruner (1960). Educators have used this publication for over thirty years to find new trails or to justify old methods. However, the single, transcending concept to be distilled from these ideas is the absolute need to teach the structure of each subject. In other words, the system of the subject. It is in terms of this unique structure of each discipline that the Woods Hole Conference reports its four major themes: 1) the role of structure in learning and how it may be made central in teaching, 2) readiness in learning is an outmoded concept and that the foundations of any subject may be taught to anybody at any age in some form, 3) the nature of intuition as an essential feature in productive thinking, and 4) the desire to learn and how it may be stimulated (Bruner, 11-14).

Probably the most important contribution of the Woods Hole Conference to education is the centering on the importance of each subject's structure. The same terms are used repeatedly throughout the publication: structure, organization, foundations, system, fundamentals, etc. The participants of Woods Hole are so insistent on structure being the center for curricula, methodology, and materials that a separate chapter is devoted to "The Importance of Structure" (Ch. 2) wherein four claims are made concerning structure: 1) understanding fundamentals makes a subject more comprehensible, 2) unless detail is placed into a structured pattern, it is rapidly forgotten, 3) an understanding of fundamentals principles and structure appears to be the best way to promote "transfer of training," and 4) by constantly reexamining material taught in elementary and secondary schools for its fundamental character, the gap can be narrowed between "advanced" and "elementary" knowledge (Bruner, 23-26).

In 1985, Boulding (1985) took a view of the whole world as a system. In so doing, he emphasized the importance of finding the links between systems in order to discover more inclusive systems. Frank Betts (1993) applied system thinking to education and characterized the necessary change as "moving from an emphasis on instruction to an emphasis on learning." However, he creates an entirely new educational system without reference to present educational successes.

In examining the current methodology used in athletics and instrumental music, one is struck by the emphasis in each activity on the "system," that is, the structure of the activity. From the first day of tryout, each student knows that the position or instrument being learned is part of a larger effort and the student has a general idea concerning how that position or instrument fits into the larger effort and the timetable by which the success must be accomplished (playoff game or concert date). For example,

students trying out for offensive end on a football team has an idea of what an offensive end does. This idea is refined over many practice and study sessions until the initial idea becomes a complete understanding of an offensive end's duties. While this refinement of concept is taking place, it is augmented and underscored by the development of physical skills which allow the student to participate in the overall plan (system) as an offensive end. Everything the student does in relation to the (in this case) football team is colored by his understanding of "offensive endness" and every task the student learns and practices increases his understanding of "offensive endness" within the system of football. Coaches will often bring the student to task for not using one or the other of these facets - encouraging the student to "use their heads" to display their understanding of their place in the system or "catch it" to develop the skills which the students understand are important for them to take their place within the system. The student becomes one powerful learning machine who uses mental, physical, and emotional energy to make the system of football part of his being. Further, the success of the team within the system of football depends upon each student succeeding at his task on each play.

In looking at the instrumental music program, the students involved also begin with a general idea of how their instrument fits into the overall system. They know the drums play the rhythm, the trumpet often plays the melody, the saxophone sounds like that guy on MTV, etc. They have also been exposed to music through the media, their church, their family, their recordings, etc. From the first day of rehearsal in "beginning band," the student is taught the entire system of music using the elements of rhythm, melody, harmony, form, tone color, and texture. The student is taught to think within the system of music and uses kinesthetics underscore and reinforce the knowledges. In each rehearsal, students are encouraged to "fit their part in" with the other students who are playing the same or other parts. In other words, the student is encouraged to understand and fit into the system. Here, again, the student uses mental, physical, and emotional energy to make the system of music part of his or her being. The student becomes a part of the success of the endeavor. By succeeding in his or her task, and by each of the other students succeeding in his or her task, the entire band becomes successful on each musical composition they play.

Another component is present in the success of athletics and instrumental music. At the very first tryout, the coach or director will make suggestions if the student is trying out for the wrong position or instrument. For example, if a short, heavy-set student wants to try out for the offensive end position, shortly into the tryout, the coach will probably suggest that the student would achieve more success and help the team more by trying out for a position on the offensive or defensive line. The same is true if a student with the "wrong" dental formation wishes to play the trumpet. The director will probably suggest another instrument (clarinet or percussion) that will allow the student to achieve

success. In other words, from the very outset, the student is directed onto a path that will assure success. And from the outset, the student knows that the coach or director is, in fact, going to help the individual succeed so that the group can succeed. And all of that is comprehended within the understanding of the system within which the student will work to achieve success. However, an important element here is that all students have equal opportunity to understand the system, no matter which instrument or position they play.

A further very important factor is at work within the students who try out for athletics and instrumental music, that is the element of individual motivation. Each student and usually the student's parent, is willing to make sacrifices in order to achieve success in these activities. The motivation may be either internal (want to play) or external (want to wear the uniform) but it becomes a driving force in the individual's life style. Because of athletics or instrumental music, a student may change diet, spend many hours in private practice, alter social and work schedules, and change social allegiances. Very often, as a result, the student gains support of a group, acceptance as an individual, stature for their accomplishments, understanding of a system that they can use for their lifetime, avoidance of fear of performance, and, perhaps most importantly, the concept of working within a system that can be transferred to other systems.

In summary, then, the common elements shared by athletics and instrumental music include:

1) Both activities are based on a system and that system is known by the participants from the outset.
2) In each case, the motivation is supplied by the student and the coach or director simply focuses that motivation to help the student clarify and perform within the system.
3) Individual accomplishment, while proceeding at idiosyncratic pacing, must be completed by a predetermined timetable.
4) Both coaches and directors attempt to find the correct placement of each student in the system and help the student succeed in that place within the system.
5) All elements of practice are related to the system, help the student clarify his or her understanding of the system, and engage the student at three levels: conceptual, kinesthetic, and emotional.
6) Evaluation will be accomplished on a group basis, but each student knows when every other student has or has not accomplished the required task. Thus each student accepts personal responsibility for completing the task.

One might well ask how these six elements relate to other areas of educational activity and to the work of Deming. Some light may be shed on the answer to this question through the writing of Randy Schenkat (1993a).

Schenkat realigns Deming's fourteen points into twelve themes,

six task issues in the workplace and six individual issues in the workplace (p. 9). The task issues include: 1) Nature of the Problem, 2) Motivation for the Task, 3) Time Frames, 4) Nature of Solutions, 5) Human Capacities Used, and 6) Assessing Results. The individual issues include: 1) Self as Learner, 2) Learning from Peers/Experts, 3) View of Self as Person, 4) Success, Challenge, and Failure, 5) Change/Uncertainty, 6) Need for Security.

Schenkat then applies the six tasks to the school situation and the six individual issues to the school situation. If one compares Schenkat's task issues to the summary above, one sees that the alignment is perfect. The six task issues coincide exactly with the six summary points. The Nature of the Problem becomes a task in understanding the system and the student place within the system and practicing skills to allow performance within the system. The Motivation for the Task is brought by the student because of student pride, peer acceptance, and the desire for team or band success. The Time Frames are given by the deadlines of game or concert dates, but within them there is allowance for practice that leads to individual improvement. The Nature of Solutions begin with placing the student on the correct task where he or she can succeed and then helping the student develop skills according to evaluation within the system requirements. The Human Capacities Used include the full person, the thinking, acting, feeling individual student with a team concept with memory and creative thinking involved. Assessing Results is done by the individual and peers, with practice generating new learning before the next rehearsal or game.

The second set in Schenkat's outline, the six individual issues are illustrated in athletic and instrumental music activities in the same way. The Self as Learner becomes a function of the individual student seeing his or her place within the structure of the system and becoming better at the tasks required of that place. The Learning from Peers/Experts reflects the activity that actually takes place in practice/rehearsal where each student attempts to help the others and the coach or director helps the individual student in order to accomplish a success on the part of the whole group. The View of Self as Person occurs in response to the definition of each student as the person who practices, lifts weights, attends practice/rehearsal instead of being involved in other activities, is a member of this particular group, and alters his or her lifestyle as a group member. The Success, Challenge, and Failure issue is seen by the individual/group/coach or director evaluation which is constructively given to show the student how to practice to improve as well as where to improve. The Change/Uncertainty issue is engaged whenever the student assesses his or her performance and follows the path to improvement of performance. The last individual issue, the Need for Security, is fulfilled as the student views himself or herself as a member of a group who is accepted by that group for the achievement and improvement that all members and coach/director wish for that student.

Finally, one might ask that since these two activities are meeting the task of quality in education, what can the other areas of school subjects learn from the activities of athletics and instrumental music. This question is given greater importance because of the study mentioned at the outset that showed that students in athletics and instrumental music score significantly higher than others on standardized tests, cumulative grade point average and lower on absenteeism.

The first element to be sought in each subject area, based on the Bruner's documentation of the Woods Hole Conference, is the structure of that subject. The structure of athletics and instrumental music is inherent in each student assignment and the student identifies his or her place within the structure. Is this true of all curricular areas? Can it be said, in Schenkat's terms, that each subject has correctly identified the (1) Nature of the Problem to be one which involves the structure of the subject? Is every assignment in World History, for example, seen by the students as an activity that engages the structure of history? Without the student perception of the structure of historyness, the tasks and dates to be learned may well become isolated activities, unrelated to the structure of history. The same is true of mathematics, or literature, or physics. Schenkat's (2) Motivation for the Task requires a personal student motivation (either internal or external). Is the task so presented that it engages the student in a personal way? Is the student motivation evident for this activity? Is the (3) Time Frame for completion of the task evident to the student. Will the student be able to complete the activity within the predetermined and known timetable? And does the activity allow for different measures of success along the way to improve the final measurement? Does each subject allow for different (4) Nature of Solutions so that each student can approach the task in a different way? Is the activity tailored to the student's ability to succeed (like the short, heavyset student being guided to a lineman position)? Are the subjects presented in such a way that the (5) Human Capacities Used include activities that engage the complete student, physically, mentally, and emotionally? And in (6) Assessing Results, are different levels of assessment used by students, as well as teachers, as well as parents? Will the student be involved in the evaluation along with peer evaluation of success?

When one looks at present curricular presentations in terms of Schenkat's six individual issues, the difference between them and athletics and instrumental music and the pervasive need for the structure of the subject become even more evident. Viewing the (1) Self as Learner implies system thinking and confidence in the group within a group activity. (2) Learning from Peers/Experts allows for small and large group activities where students can share their knowledge and be instructed/corrected by the teacher. When the teacher assumes a (3) View of Self as Person then the activities required will allow each student to participate in their own way, not all in the same way. The idea of promoting (4) Success, Challenge, and Failure will not be the end of the activity but

rather a continuing recycling of these benchmarks. The student will not be seen as a success or a failure but the activity engaged in will use these evaluations to encourage further tasks. The (5) Change/Uncertainty will be accommodated by constantly altering the tasks which always reflect the structure of the subject, thus allowing the students to grow into each set of tasks while learning the structure. The (6) Need for Security is met by eliminating student fear by focusing on the student as part of the group, as one who accomplished some of the tasks reflecting the structure of the subject, and by participating with others in the constantly changing array of tasks.

There is one further distinguishing characteristic relating to both athletics and instrumental music that should be emulated by the other content areas in the school. In athletics and instrumental music, the instructor is seen by the students as a person who is the model for the student and has accomplished what the student is being asked to become. In other words, the coach is or has been an athlete and the band director is a musician who performs on one or more of the band instruments. Is the history teacher an active historian? Is the mathematics teacher an active mathematician? If this is the case, then the teacher is probably requiring student activities that reflect the essential structure of the curricular area. Perhaps history classes should require the students to write a history of their own selection. By so doing the student would have to reflect on the essence of history and could develop a structure within which present known histories could be subsumed. The same is true of mathematics. Are the students required to use mathematics in a meaningful way, or are the assignments made up of theoretical problems? Are the literature students required to be writers? Are the French students required to use the French language in their daily life?

Thus, the basic suggestion of the Bruner publication will be implemented. And it seems to point the way to implementing Total Quality Management in Education.

BIBLIOGRAPHY

Ben-Tovin, A. & Boyd, D. (1985). The Right Instrument for Your Child. New York: Morrow and Company.

Betts, Frank. (1992). "How Systems Thinking Applies to Education," . Educational Leadership, 50, 3:38-41.

Boulding, K.E. (1985). The World as a Total System. Beverly Hills, CA: Sage.

Brace, D.K. (1966). Football Skills Test Manual. Washington D.C.: American Association for Health, Physical Education and Recreation.

Bruner, Jerome S. (1960). The Process of Education. New York: Vintage Books, A Division of Random House.

Deming, W.E. (1986). Out of the Crisis. Cambridge, Mass.: MIT Center for Advanced Engineering Study.

McCarthy, Kevin (1993). Creating the Quality School Selected Readings. Norman, Oklahoma: University of Oklahoma Center for the Study of Small/Rural Schools.

Schenkat, Randy. (1993). "Deming's Quality: Our Last But Best Hope," Educational Leadership, 51, 1:64-65.

Schenkat, Randy. (1993a). Quality Connections, Transforming Schools through Total Quality Management. Alexandria, VA: Association for Supervision and Curriculum Development.